

PERSONALITY COMPONENTS OF TEACHING AS DETERMINANTS OF JOB SATISFACTION

**AN ERIC (NCERT)
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a report of the ERIC (NCERT) approved project

TEACHERS' PERSONALITY COMPONENTS AS DETERMINANTS OF
JOB SATISFACTION

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20th April, 1980

PREFACE

This is the report of research project entitled, "Teachers' Personality Components as Determinants of Job Satisfaction", approved by the ERIC (NCERT) in 1977. The report is presented in the following three papers :

1. Job Satisfaction vs Work Role Variables
2. Personality Factors and Job Satisfaction
3. In the Quest of Best Quality Teachers -
An Investigation.

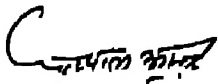
The researcher feels thankful to the ERIC for the approval of this project for the financial assistance and looks forward to the release of the actual expenditure incurred on it. He is also grateful to the Principal Dr. G.B. Kanungo, Regional College of Education, Bhubaneswar and his administrative staff for facilitating him to submit the report in the present fashion.

The researcher records his sincere regards to the teachers and his colleagues who were kind enough to enlist their cooperation in the completion of this project.

Last but not the least I take this opportunity to thank Dr. R.N. Mehrotra, Professor of Education, University of Delhi, for his valuable guidance in pursuing this sort of work. I shall at the same time be failing in my duty if I do not thankfully acknowledge the motivation and encouragement extended to me by Dr. K.C. Panda, Professor of Education, Regional College of Education, Bhubaneswar to initiate the work on this project.

Copies of this report are being sent to the Member-Secretary, ERIC, NCERT; Library, NIE, NCERT; and the Head, Centre for Advanced Studies in Education, M.S. University, Baroda.

Bhubaneswar dated
the 20th April, 1980. }


(S.P. Anand)

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JOB SATISFACTION VS. WORK ROLE VARIABLES

Possession of a sound mental health has been accepted to be an essential prerequisite for an effective teacher. Teacher's sound mental health pertains to his best of adjustment within himself and his surroundings. Obviously, the teacher manifests his mental health in the feelings of satisfaction and dissatisfaction at his job. The optimum level of efficiency is attained by the teacher by virtue of his being satisfied at his job whereas on the contrary dissatisfaction hampers his functioning to any useful purpose. Satisfaction identifies the teacher with his^s profession and dissatisfaction keeps him in ever readiness to get out of it at the earliest available opportunity. In the phenomenon of teacher-pupil interaction i.e. education, it is but of fundamental importance that the teacher should cherish desirable mental health so as to facilitate the children, entrusted to his guidance, acquire sound mental health, that is, the smooth alround development of personality which remains to be the ultimate aim of education.

In their surveys of literature on job satisfaction, Vroom (1964); Rohilla (1966); Dwivedy (1977) and Anand (1977) have come to the conclusion that any explanation of job satisfaction requires the use of both work role and personality variables. These two sets of variables are recognised as interacting with each other influencing and

determining one's job satisfaction. Both the mentioned variables need be studied simultaneously rather than in a piecemeal way exclusive of one or the other.

OBJECTIVES OF THE STUDY

The present investigation, attempts to study teachers' job satisfaction in relation to the following variables :

1. Work Role Variable(s): States in which teachers are working, qualifications, subjects of teaching, age and teachers' training.
2. Personality Variable(s) : Sixteen personality factors as revealed on 16 P.F. questionnaire by Cattell.

However, in this paper, the analysis of first variable(s) is produced. The analysis on the second variable will be reported in the second paper in series.

SAMPLE: The sample includes 999 teachers (507 trained and 492 B.Ed. trainee teachers) teaching various subjects in different schools of the eastern States of India. The sample of trainee-teachers is included only to compare the job satisfaction of trained and trainee working teachers.

TOOLS: Following two questionnaires have been used in this study :

1. Job Satisfaction Scale by - Anand (1972)
2. Sixteen Personality Factor Questionnaire by - Cattell (Form A, 1967-68).

ANALYSIS AND INTERPRETATION

The immediate perusal of the frequency Table I shows that the distribution of scores on Job Satisfaction Scale follows a normal distribution pattern. It is found that out of 507, 335 i.e. 66.07% teachers fall in the middle range of the frequency table in the class intervals of 60 to 89 of the distribution. There are only 49 i.e. 9.66% teachers who fall at the tail end of the distribution and 123 i.e. 24.26% teachers occupy the higher limits of the distribution. The values of 78.92, 80.45, 83.51 and 14.60 for mean, median, mode and standard deviation respectively of this distribution also substantiates the nearly normal distribution pattern followed by the sample on the Job Satisfaction Scale. A very small skewness of $-.32$ further gives additional evidence to our inference about the distribution of job satisfaction scores.

JOB SATISFACTION SCORES OF THE TEACHERS OF DIFFERENT STATES

The means and standard deviations of job satisfaction scores of the teachers of different States have been recorded in Table II. It is seen that these mean scores of the teachers of almost all States revolve around the digit of 80. This revelation falls in line with the author's earlier studies (1972, 77) which actually had led to form the basis of taking a minimum score of 80 on this Scale to adjudge the teacher satisfied at

his job. It is further gathered that there is no significant difference between the mean scores of teachers of different States. It may be inferred that job satisfaction enjoyed by teachers is not influenced by the States in which they are working. This is further corroborated by the insignificant value of chi-square ($\chi^2 = 14.11$ for $df=24$), calculated by applying the test of independence on Table-1. Even for the contingency Table-III, chi-square is found to be only 3.22 for 3 degrees of freedom which is not significant. It shows that the number of teachers found satisfied does not depend upon the States in which they are working. We may acknowledge it a welcome finding that job satisfaction/dissatisfaction of teachers can hardly be attributed to the geographical boundaries of their working places.

However, in the case of Orissa, it is found that as much as 50% teachers are not satisfied. This overall position is also far from being satisfactory. It is here that we are constrained to think about the role teachers can play especially in assisting the children entrusted to their guidance for attaining sound mental health. The question may fall in the purview of Philosophy, Sociology or Psychology, but it is very pertinent to penetrate into the minds and hearts of 'life makers' to rationalise the ailing factors of the mental health of teachers.

JOB SATISFACTION AND SUBJECTS OF TEACHING OF TEACHERS

To find out the association between the job satisfaction scores and the subjects of teaching of the teachers, chi-square

test of independence was applied on the contingency Table IV. The chi-square has been calculated to be 26.66 which is not significant for 40 degrees of freedom. It may be inferred that these two variables are independent of each other. The question was further analysed in the case of teachers of different subjects belonging to Orissa (State keeping the same).

From Table-V we find that maximum value of 80.85 for mean is obtained by teachers of History/Civics whereas the teachers teaching Mathematics score the least mean of 74.50 amongst all the teachers of various subjects. The difference in the means of these two groups of teachers is significant and no other comparison has revealed any significant difference between their means.

A further discussion seems to be quite relevant to look into the number of teachers found satisfied and dissatisfied in respect of their teaching subjects. This is necessitated because of the fact that the total spread-over of the scores with S. Ds of 12 to 16 may not be discriminating between satisfied and dissatisfied teachers. Moreover, we find that there is a difference between mean scores of teachers of different subjects which however is not found to be statistically significant.

Obviously, it is observed in Table-VI, that whereas 62.26% teachers of History/Civics are found to be satisfied, there are 61.86% teachers of Mathematics who have revealed

themselves to be dissatisfied. This very inference follows the findings on the significance of difference between mean scores of these teachers. Similarly, in the case of English (subject) teachers, 61.81% of them are noted to be satisfied whereas in the subject of Physical Sciences only 50.37% teachers are found to be satisfied. This may be right to interpret on the basis of this discussion that these two variables can not be seen in isolation from each other.

JOB SATISFACTION VS. QUALIFICATIONS OF TEACHERS

Another variable which has been taken to be a work role variable and studied in relation to job satisfaction is the variable of qualifications of teachers.

Just like the analysis of other variables, chi-square test of independence has been applied on the contingency Table-VII. The value of chi-square for 24 degrees of freedom has been calculated to be 25.03 which lies in between the probability values of .50 & .30. That suggests that job satisfaction scores and qualifications exhibit their independent existence bearing no relationship with each other. The analysis has however been further stretched in the interpretation of mean scores of the teachers having B.A., B.Sc., M.A., & M.Sc. degrees.

From Table-VIII, it may be observed that no significant difference between mean scores of B.A. vs. B.Sc. (CR= .62) and M.A. vs. M.Sc. (CR= .88) teachers, is reported. But a significant difference between the mean job satisfaction scores

of graduate and post graduate teachers with a CR= 2.27 has been recorded. It may be visualized that as if higher value of mean (81.17) goes with higher qualifications that is for post graduation and lower value of mean (78.02) is associated with lower qualifications i.e. only graduation. This may give weight to the view that basis of job satisfaction in teaching profession may be seen in higher qualifications. Table-IX explains that being satisfied or dissatisfied at the job is dependent upon teacher's qualifications. ($\chi^2 = 9.31$ for 3 degrees of freedom significant at 01 level). We come to know that 45.45% and 46.66% Science graduate and post graduates respectively are satisfied in science group whereas in arts group this percentage goes to 54.94% and 62.96% respectively. We may conclude that more teachers in arts group are satisfied than in the science group. And in Arts group post graduates decisively outnumber the graduate teachers in satisfaction.

The value of r_{Pis} is i.e. .13 between job satisfaction scores of graduate and post graduate teachers is significant. It refers to the close positive relationship between job satisfaction scores and their qualifications.

AGE VS. JOB SATISFACTION

A simultaneous study of age and job satisfaction scores has also been made and it is found that age and job satisfaction scores are independent of each other.

Table-X represents a true dichotomy of satisfied and dissatisfied teachers. The co-efficient of correlation (point

biserial) is calculated to be only 0.07, and is, not significant. It is also seen that there is no significant difference between the mean ages of satisfied and dissatisfied teachers. We can say that there exists no direct relationship between job satisfaction and age.

However, Table-XI, corroborates Herzberg's (1957) conclusion, "workers begin with high morale, which drops during the first five years of service and remains low for a number of years. As service increases morale tends to go up.". In the age group of 20-29 years, 55.07% teachers are found to be satisfied whereas in the age group of 50-59 years, this percentage rises to 90. However, for the age group of 30-39 percentage of satisfied teachers had dropped to 47.35% and this value is seen inflated to 63.55% for the age group of 40-49 years. It may be concluded that there exists no linear relationship between age and job satisfaction.

JOB SATISFACTION VS. TEACHERS' TRAINING

It has already been pointed out that this study also involves a sample of 492 working teachers undergoing B.Ed. training under Summer-School-cum-Correspondence course. A comparative analysis of the job satisfaction of trained and trainee teachers is reported in Table-XII.

In the case of trained working teachers, it has been reported in the analysis of Table-I that mean job satisfaction score comes to be 78.92 and as a whole 52.66% (Table-III) teachers are found to be satisfied. However, a significantly greater percentage i.e. 64.63% trainee working teachers have

been found to be satisfied. In the comparison of mean scores on Table-XII, the mean score of trainee teachers (82.61) is found to be significantly greater than trained working teachers. It may be taken that while undergoing B.Ed. training, trainees' morale is boosted up which is reflected in their higher satisfaction scores. It is a welcome finding that atleast training period enhances the spirits of teachers which need to be further strengthened and sustained. The author in his study (1972) and Koul (1977) had found that training brings no substantial change in the job satisfaction and positive attitude of student-teachers for their profession. In the light of this discussion, the question needs further investigations.

It may give rise to the idea whether B.Ed. training should be allowed only to working post graduate teachers and/or we should bring about some tangible changes in the teacher-education programme which should reflect in the increased positive attitude of student-teachers with the completion of their training period. It may also suggest that in regular B.Ed. classes, 50% seats should be reserved for working untrained teachers along with fresh post graduates.

SUMMARY OF THE FINDINGS OF THIS STUDY

- (a) 50% teachers working in schools are reported to be dissatisfied.
- (b) States in which the teachers are working bear no correspondence with their job satisfaction.

- (c) The maximum mean score of job satisfaction is found to be of the teachers of History/Civics and the minimum mean scores is calculated to be for the Mathematics teachers. 62.26% History/Civics teachers are found to be satisfied, and 61.68% teachers of Mathematics are revealed to be dissatisfied.
- (d) A greater percentage of post graduate teachers both in Arts & Science groups is found to be satisfied than the percentage of graduate teachers reported satisfied.
- (e) It is found that there exists no linear relationship between age of teachers and their scores of job satisfaction.
- (f) The percentage of satisfied trainee working teachers is greater than that of satisfied trained working teachers.

TABLE-1

DISTRIBUTION OF JOB SATISFACTION SCORES OF TEACHERS
FROM DIFFERENT STATES

<u>Scores</u>	<u>Number of teachers from</u>				<u>Total</u>
	<u>Orissa</u>	<u>Bengal</u>	<u>Bihar</u>	<u>Other States*</u>	
110-119	3	0	0	0	3
100-109	14	4	4	3	25
90-99	57	12	16	10	95
80-89	91	27	19	7	144
70-79	73	21	13	5	112
60-69	57	6	9	7	79
50-59	27	4	1	1	33
40-49	7	1	2	2	12
30-39	2	0	1	1	4
	<u>331</u>	<u>75</u>	<u>65</u>	<u>36</u>	<u>507</u>

*Assam, Arunachal Pradesh, Sikkim, Manipur, Meghalaya.

TABLE - II

SIGNIFICANCE OF DIFFERENCE BETWEEN JOB SATISFACTION
SCORES OF TEACHERS OF DIFFERENT STATES

<u>Sl.No.</u>	<u>State</u>	<u>Number</u>	<u>Mean</u>	<u>S.D</u>
1.	Orissa	331	78.10	14.66
2.	Bengal	75	80.63	12.32
3.	Bihar	65	80.96	14.19
4.	Other States*	36	79.23	17.53
5.	Combined other States**	176	80.41	14.35

* Assam, Arunachal Pradesh, Sikkim, Manipur, Meghalaya.

**Including Bengal, Bihar.

<u>Difference between the</u> <u>scores of teachers of</u>	<u>SE of difference</u> <u>between means</u>	<u>Critical Ratio</u>
Orissa and Bengal	1.63	1.55 n.s.
Orissa & Bihar	2.18	1.31 n.s.
Orissa & other States	3.03	0.37 n.s.
Orissa & other combined States	2.88	0.78 n.s.

TABLE - III

NUMBER OF TEACHERS FOUND SATISFIED AND DISSATISFIED
IN DIFFERENT STATES

<u>State</u>	<u>Teachers</u>		<u>Total</u>
	<u>Satisfied</u>	<u>Dissatisfied</u>	
Orissa	165(49.85)*	166(50.15)	351
Bengal	43(57.34)	32(42.66)	75
Bihar	39(60.00)	26(40)	65
Other States	20(55.55)	16(44.45)	36
Total:	267(52.66)	240(47.34)	507

*Figures in brackets show percentage of numbers.

TABLE - IV

DISTRIBUTION OF JOB SATISFACTION SCORES OF TEACHERS
OF VARIOUS SUBJECTS

<u>Scores</u>	<u>Subjects</u>						<u>Total</u>
	<u>Eng.</u>	<u>Ph.Sc.</u>	<u>Econ.Geo.</u>	<u>Hist.Civics</u>	<u>Math.</u>	<u>Hindi</u>	
110-119	0	0	2	0	1	0	3
100-109	4	6	5	6	3	1	25
90-99	12	27	11	19	18	8	95
80-89	18	34	20	39	25	8	144
70-79	7	28	11	22	39	5	112
60-69	10	22	13	14	17	3	79
50-59	4	9	5	4	11	0	33
40-49	0	6	2	2	2	0	12
30-39	0	1	1	0	2	0	4
	55	135	70	106	118	25	507

TABLE-V

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF JOB
SATISFACTION OF TEACHERS OF DIFFERENT SUBJECTS

<u>Subjects</u>	<u>Means</u>	<u>N</u>	<u>S.D.</u>	<u>Interpretation</u>
Phy.Sc.	78.37	93	14.30	$\bar{D}=2.63$
Eco.Geo	77.36	57	16.41	CR=0.57
Phy.Sc.	78.37	93	14.30	$\bar{D}=2.08$
Hist. Civics	80.85	74	12.51	CR=1.19
Phy.Sc.	78.37	93	14.30	$\bar{D}=2.43$
Math.	74.50	73	16.47	CR=1.59
Eco.Geo	77.36	57	16.41	$\bar{D}=2.62$
Hist.Civics	80.85	74	12.52	CR=1.33
Eco.Geo	77.36	57	16.41	$\bar{D}=2.91$
Math.	74.50	73	16.47	CR=0.98
Hist.Civics	80.05	74	12.51	$\bar{D}=2.41$
Math.	74.50	73	16.47	CR=2.62

TABLE-VI

NUMBER OF TEACHERS TEACHING DIFFERENT SUBJECTS
FOUND SATISFIED AND DISSATISFIED

<u>Subjects</u>	<u>Teachers</u>		<u>Total</u>
	<u>Satisfied</u>	<u>Dissatisfied</u>	
English	34(61.81)	21(38.19)	55
Phy.Sc.	67(50.37)	66(49.56)	133
Hist.Civics	66(62.26)	40(37.74)	106
Math.	45(38.14)	73(61.86)	118
Hindi	17(68.00)	8(32.00)	25
Eco.Geo	38(54.29)	32(45.71)	70
	<u>267</u>	<u>240</u>	<u>507</u>

TABLE - VII

JOB SATISFACTION SCORES AND QUALIFICATIONS OF TEACHERS

<u>Scores</u>	<u>B.A.</u>	<u>B.Sc.</u>	<u>M.A.</u>	<u>M.Sc.</u>	<u>Total</u>
110-119	2	1	0	0	3
100-109	8	7	8	2	25
90-99	35	34	20	6	95
80-89	55	43	40	6	144
70-79	27	51	24	10	112
60-69	36	30	10	3	79
50-59	12	16	3	2	33
40-49	5	4	2	1	12
30-39	2	1	1	0	4
	<u>182</u>	<u>187</u>	<u>108</u>	<u>30</u>	<u>507</u>

TABLE-VIII

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF JOB SATISFACTION OF TEACHERS OF DIFFERENT QUALIFICATIONS

<u>Qualifications</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>
B.A.	182	78.57	15.37
B.Sc.	187	77.60	14.37
M.A.	108	81.72	13.32
M.Sc.	30	79.17	14.31
Graduates(B.A.+ B.Sc.)	369	78.02	14.93
Post-Graduates (M.A.+ M.Sc.)	138	81.17	13.59

TABLE-IX

SATISFIED AND DISSATISFIED TEACHERS OF
DIFFERENT QUALIFICATIONS

<u>Qualifications</u>	<u>Teachers</u>		<u>Total</u>
	<u>Satisfied</u>	<u>Dissatisfied</u>	
B.A.	100(54.94)	82(45.06)	182
B.Sc.	85(45.45)	102(54.55)	187
M.A.	68(62.96)	40(37.04)	108
M.Sc.	14(46.66)	16(53.33)	30
	<u>267</u>	<u>240</u>	<u>507</u>

TABLE-X

AGE & JOB SATISFACTION SCORES

<u>Age in years</u>	<u>Job satisfaction scores</u>		<u>Total</u>
	<u>0-79</u>	<u>80-120</u>	
	<u>Dissatisfied</u>	<u>Satisfied</u>	
55-59	0	1	1
50-54	1	8	9
45-49	12	21	33
40-44	27	47	74
35-39	96	71	167
30-34	73	81	154
25-29	30	33	63
20-24	1	5	6
	<u>240</u>	<u>267</u>	<u>507</u>

TABLE-XI

RISE AND FALL OF JOB SATISFACTION SCORES
OF TEACHERS WITH AGE

<u>Age in years</u>	<u>Teachers</u>		<u>Total</u>
	<u>Satisfied</u>	<u>Dissatisfied</u>	
50-59	9(90)	1(10)	10
40-49	68(63.55)	39(36.45)	107
30-39	152(47.35)	169(52.64)	21
20-29	38(55.07)	31(44.93)	69
	<u>267</u>	<u>240</u>	<u>507</u>

TABLE-XII

SIGNIFICANCE OF DIFFERENCE BETWEEN THE JOB
SATISFACTION SCORES OF TRAINED AND TRAINEE WORKING
TEACHERS

Full Sample

<u>Teachers</u>	<u>N</u>	<u>Means</u>	<u>S.D.</u>	$\bar{D} = .9648 \text{ CR}=3.82$
Trained	507	78.92	14.60	
Trainees	492	82.61	15.85	

ORISSA TEACHERS

Trained	331	78.10	14.66	$\bar{D}=1.0387 \text{ CR}=5.38$
Trainees	285	83.69	11.07	

BIHAR TEACHERS

Trained	65	80.96	14.19	$\bar{D}=2.2481 \text{ CR}=1.23$
Trainees	90	83.73	13.27	

BENGAL TEACHERS

Trained	75	80.63	12.32	$\bar{D}=2.2891 \text{ CR}=2.70$
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REFERENCES

1. Anand, S.P. (1972) 'School Teachers and Job Satisfaction' Teacher Education; VII(1), 61-23
2. Anand, S.P. (1977) 'School Teachers: Job Satisfaction vs. Extraversion & Neuroticism' Indian Educational Review; XII(2), 68-78
3. Dwivedi, Neerja (1977) 'A study of the Effect of Financial Incentives on Job Satisfaction of Blue-Collar Workers'. Indian Education Review; XI(2), 49-76
4. Herzberg, F. et al. (1957). 'Job Attitudes-Review of Research and Opinion'. Pittsburg Psychological Service.
5. Koul, Lokesh (1977). 'A study of the Impact of Teacher Training Upon Attitude of Student Teachers Towards Teaching'. Indian Educational Review, XI(2), 38-43.
6. Rohilla, Pritam (1966). 'Job Satisfaction - A Summary of Research'. Indian Educational Review, V(1), 85-95.
7. Vroom, K.H.(1964). Work & Motivation. New York ! John Wiley.

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ABSTRACT

This study involves 507 trained and 492 B.Ed. trainee working teachers in the schools of eastern States of India. A Job Satisfaction Scale standardized by the investigator and 16 P.F. questionnaire by Cattell have been used in this investigation.

Job satisfaction of school teachers has been studied in relation to its work role variables and personality variables. This paper reports the analysis of job satisfaction and work role variables only.

It is found that 50% of working teachers are not satisfied at their job and that their satisfaction is not associated with the States in which they are working. Whereas 62.26% History/Civics teachers are found to be satisfied, 61.86% teachers of Mathematics are revealed to be dissatisfied. A greater percentage of post graduate than that of graduate teachers, both in science and arts groups, is reported to be satisfied. It is found that there exists no linear relationship between age and job satisfaction. The percentage of B.Ed. satisfied trainee working teachers ⁴ found to be ~~is~~ greater than that of satisfied trained working teachers.

PERSONALITY FACTORS AND JOB SATISFACTION

This is the second paper in series. In the first paper it has been reported that 50% teachers are not satisfied, States in which teachers are working bear no correspondence with their job satisfaction but higher academic qualifications have been found to be compatible with higher degrees of satisfaction. It has also been revealed that trainee outnumber trained working teachers who report satisfaction at their job. Moreover 62.26% teachers teaching History/Civics and 61.86% teachers of Mathematics present a contradictory statistics as satisfied and dissatisfied showing thereby that subjects of teaching have relevance with the satisfaction of school teachers.

This paper on 507 trained working teachers in the High/ Higher Secondary Schools of Eastern States of India involves the analysis of :

1. personality factors of teachers as found on Cattell's 16 P.F. questionnaire,
2. relationship between personality factors and job satisfaction of teachers.

Cattell's 16 P.F. questionnaire is considered to provide a complete coverage of personality factors.

"Coverage of personality by this test is ensured by the sixteen functionally independent and psychologically meaningful dimensions".

Sixteen personality factors covered in the questionnaire are briefly reportedly as under :

<u>Personality factor</u>	<u>Low Score Dimension</u>	<u>High Score Dimension</u>
A	Reserved	Out going
B	Less Intelligent	More Intelligent
C	Affected by feelings	Emotionally stable
E	Humble	Assertive
F	Sober	Happy-go-lucky
G	Expedient	Conscientious
H	Shy	Venturesome
I	Tough minded	Tender-minded
L	Trusting	Suspicious
M	Practical	Imaginative
N	Forthright	Shrewd
O	Placid	Apprehensive
Q ₁	Conservative	Experimenting
Q ₂	Group-dependent	Self-sufficient
Q ₃	Undisciplined	Controlled
Q ₄	Relaxed	Tense

^u
Author's (1972) job-satisfaction scale/used here consists of 30 statements has been constructed following the Likert's technique.

PERSONALITY STRUCTURE OF/TEACHERS

On each factor of 16 P.F. questionnaire, the person who scores stens of 1 to 3 and 8 to 10 is considered to be at its low and high directions respectively.

It is found that there are no significant differences

between the percentage of teachers of Orissa and other States falling on their respective lower as well as on higher directions of each of the 16 personality factors (no statistics is tabulated here). We may infer from this that States bear no significance in the distribution of number of teachers falling on these two extreme dimensions of 16 personality factors.

Table I reveals that there are significant differences between the percentage of teachers falling on lower and higher directions of each factor which may be discussed as under :

The distribution of number of teachers on three directions of personality factors shows nearly 70% teachers falling in moderate direction i.e. the middle direction. The rest of the percentage of teachers occupy low and high directions on each factor. This may be taken as a test of normal distribution of our sample on 16 personality factors.

The critical ratios between the difference of percentage of teachers at low and high end of each factor, have been found to be significant either for low or high direction of the personality factor. It is only factor B i.e. Intelligence which has been singled out where the C.R. is not significant. For the rest of 15 factors we can draw the following inferences:

On factors A, G, H, I, L, N and Q₃ significantly greater number (percentage) of teachers are found on higher directions than on low directions of these personality constituents of teachers. It may be interpreted for Factor A, that greater percentage of teachers are found to be cooperative,

attentive to people, soft hearted, kindly and adaptive rather people working alone and avoiding compromises of view points. It may be said that greater number of teachers are revealed to be generous in personal relations, less afraid of criticism and better able to remember names of people - a desirable trait for teachers.

On Factor G, who scores high tends to be exacting in character, dominated by sense of duty, persevering, responsible and planful. He is usually conscientious and moralistic and prefers hard-working people to witty companions. It is a welcome finding that we have 30.96% teachers possessing these traits in contrast to only 5.92% teachers on the lower end of this personality factor that is who are unsteady in purpose and lack efforts.

On Factor H, 18.34% and 3.55% teachers occupy higher and lower ends. These percentages reveal that more teachers are sociable, bold, ready to try new things, spontaneous and abundant in emotional response. There are only 3.55% teachers who tend to be shy, withdrawing, cautious, retiring and who dislike personal contacts.

On Factor I, we find 30.17% teachers on the higher end of this factor and these are the teachers who may be considered to be day-dreaming, impatient, dependent and impractical. On this factor 3.16% teachers are found to be practical, realistic, independent and responsible which may not be accepted to be a healthy revelation on the personality of teachers. These findings are further substantiated by the

findings on Factor L, 15.19% teachers on higher end of this factor can be said to be mistrusting, involved in their own ^{ego} and unconcerned about other people. It is only 8.68% of teachers on the other end of this factor who are found to be cheerful, free from jealous tendencies, good team workers and are adaptable. The findings on Factor N, more or less toe the same line of interpretations, on this factor who scores high tends to be polished and worldly shrewd, he is often hard headed and analytical. Our 25.44% teachers fall in this category. The other end of this trait where we find only 5.13% teachers can be said to be unsophisticated, sentimental and simple.

On Factor Q₃, we have 15.19% teachers who may be said to have strong control on their emotions, general behaviour and are socially aware and careful. On the other side, on this factor, there are only 5.52% teachers who can be regarded even as maladjusted, who are not bothered about social considerations and demands.

It is revealed that out of 7 factors where significantly higher percentage of teachers i.e. A(18.94), G(30.96%), H(18.34) and Q₃(15.19%) are found to be on the high direction than ^{on} on low direction A(5.52) , G(5.92), H(3.55) and Q₃(5.52) give welcome findings whereas inferences on factors I(30.17), L(15.19) and N(25.44) can be taken as a matter of consideration if not ^{of} concern.

On Factors C & E, 21.10% and 14% teachers are ^{on} ~~as~~ low directions and only 7.70% and 8.29% on high directions

respectively. It means more teachers are affected by feelings rather than being emotionally mature, humble and assertive.

On Factor F, 46.94% teachers are found to be sober, reticent, restrained and introspective whereas only 0.59% teachers are revealed to be talkative and carefree.

On Factor M, 18.15% teachers are found on lower end who may be said to be anxious to do the right things, attentive to practical matters and subject to the dictation of what is obviously possible. On the higher end 9.86% teachers are depicted as people wrapped up in inner urgencies and careless of practical matters.

On Factors O, Q₁, Q₂, we find 18.35%, 20.71% and 29.59% teachers on the low directions which percentages are significantly greater than the respective percentages on higher ends i.e. 9.66, 8.68 and 8.08 respectively. It may be inferred that more teachers are self-assured, confident rather than worrying, depressive, troubled; and respecting established ideas, tolerant of traditional difficulties rather than critical, liberal, analytical; and group-dependent rather than self-sufficient.

On Factor Q₄, 21.30% teachers on low direction are considered to be relaxed, composed and satisfied. Whereas 6.31% teachers on the high direction of this factor may be seen as frustrated.

On 16 P.F. questionnaire, factors A, F, G, H, M, O, Q₃, Q₄ give a favourable interpretation whereas factors C, E, I, L, N,

Q₁, Q₂ go against a pleasant profile of schools teachers. In other words, a good number (percentage) of teachers are reported to be outgoing, sober, conscientious, venturesome, practical, placid, controlled and relaxed. Similarly, a significant percentage of teachers is revealed to be easily up-set, humble, tough-minded, suspicious, shrewd, conservative and group-dependent.

JOB SATISFACTION AND PERSONALITY FACTORS

In this study we find 267 and 240 teachers satisfied and dissatisfied respectively on the Job Satisfaction Scale on the basis of their scoring of 80 or above on it. We have analysed in the preceding discussion that teachers possess favourable as well as unfavourable personality factors on 16 P.F. Questionnaire by Cattell. This leads us into the discussion of relationship between personality factors and job satisfaction of teachers.

Firstly, 16 contingency tables (2X3) between satisfied and dissatisfied teachers and their placement on lower, moderate and higher directions of each of 16 P.Fs were arrived at and chi-square test of independence was applied, the results of which have been reported in Table II. It is seen that out of 16 for A, C, G, H, O, Q₂, Q₃ and Q₄ personality factors the chi-square is found to be significant showing thereby that these 8 factors of satisfaction and dissatisfaction are associated with each other. Now to see whether lower or higher direction of the factors is associated with satisfied and dissatisfied teachers, we calculate the significance of difference between

the mean stens of satisfied and dissatisfied teachers on each of the personality factors, and the results are shown in Table III.

These are the factors A,C,H, and Q_3 on which mean difference is significant in favour of satisfied teachers and mean difference is significant in favour of dissatisfied teachers on factors G,L,O, Q_1 , Q_2 and Q_4 . That means the high direction of the personality factors A,C,H, and Q_3 goes in favour of satisfied teachers whereas the high directions of the factors G,L,O, Q_1 , Q_2 and Q_4 goes in favour of dissatisfied teachers. In the rest of 6 factors there is no significant difference in between the mean stens of satisfied and dissatisfied teachers. Before we interpret these connonations of the personality factors, we examine the significance of differences between percents of satisfied and dissatisfied teachers falling in low and high directions of each of these personality factors as shown in Table IV.

It is found that in low direction of the factors, the difference goes in favour of satisfied teachers on factors O, Q_2 , Q_4 and the difference goes in favour of dissatisfied teachers on factors A and C. Similarly when we examine the high direction of the factors, the difference of percentage of teachers goes in favour of satisfied teachers on factors C,G, H, and Q_3 . That means the difference of factors for satisfied and dissatisfied teachers is attributed to A,C,G,H,O, Q_2 , Q_3 and Q_4 factors. This is absolutely in line with the findings on chi-square test in Table II which is nearly collaborated with

the findings on Table III. We have found the coefficients of correlation between job satisfaction and 16 factors as reported in Table V, and arrive at the characteristics of satisfied and dissatisfied teachers in the following tabular form :

<u>Factor</u>	<u>Satisfied Teachers</u>	<u>Dissatisfied Teachers</u>
A	Warm hearted, easygoing, participating	Detached, Critical, Cool.
Ø C	Emotionally stable, faces reality, calm and mature	Affected by feelings, emotionally less stable and easily upset.
Ø E	Conscientious, persevering, responsible, moralistic.	Expedient, feels low obligations, unsteady in purpose.
H	Ventursome, socially-bold, spontaneous and abundant in emotional response.	Shy, restrained, diffident, timid, inferiority complex.
O	Placid, self-assured, confident, resilient.	Apprehensive, worrying, depressive, troubled.
Q ₂	Self-sufficient, prefers own decisions, discounts public opinion.	Group dependent, sound followes, depends upon social approval and admiration.
Q ₃	Controlled, socially precise, self-respecting and regard for social reputation.	Unsatisfied, self-conflict, careless of protocol, follows own urges.
L	Trusting, adaptable, free of jealousy, easy to get on with.	Suspicious, self-opinioned, unconcerned about other people.

Here it may be pointed out that an attempt was made to arrive at the regression equation for the prediction value of personality factors in respect of job satisfaction. But nothing could be arrived at worth making report of it as the values of r in between personality factors and between job

satisfaction scores and personality factors remained to be very small for the purpose as reported in Table V.

TABLE-1

NUMBER OF TEACHERS AT LOW, MODERATE AND HIGH DIRECTIONS
OF 16 PERSONALITY FACTORS

Factor	Direction of Stems			C.R.**
	Low (1-3)	Moderate (4-7)	High (8-10)	
A	28(5.52)*	383(75.54)	96(18.94)	6.48
B	63(12.42)	369(72.78)	75(14.80)	1.09
C	107(21.10)	361(71.20)	39(7.70)	6.03
E	71(14.00)	394(77.71)	42(8.29)	2.87
F	238(46.94)	266(52.47)	03(0.59)	16.97
G	30(5.92)	320(63.12)	157(30.96)	10.21
H	18(3.55)	396(78.11)	93(18.34)	7.48
I	16(3.16)	338(66.67)	153(30.17)	11.46
L	44(8.68)	386(76.13)	77(15.19)	3.17
M	92(18.15)	365(71.99)	50(9.86)	3.80
N	26(5.13)	352(69.43)	129(25.44)	8.93
O	93(18.35)	365(71.99)	49(9.66)	3.96
Q ₁	105(20.71)	358(70.61)	44(8.68)	8.91
Q ₂	150(29.59)	316(62.33)	41(8.08)	8.70
Q ₃	28(5.52)	402(79.29)	77(15.19)	7.09
Q ₄	108(21.30)	367(72.39)	32(6.31)	6.87

* Digits in the brackets show the percentage value.

** CR shows the significance of difference between percentage of teachers on low and high directions.

TABLE-II

CHI-SQUARE TEST OF INDEPENDENCE BETWEEN 16 P.FS AND
SATISFIED AND DISSATISFIED TEACHERS

d = 2, at .05 = 5.09
.01 = 9.21

Factor	Chi-square	Lies in between
A	15.92	Significant at 01
B	2.72	.30 and .20
C	19.53	Significant at 01
E	3.12	.30 and .20
F	2.70	.30 and .20
G	9.59	Significant at 01
H	10.95	Significant at 01
I	0.87	.70 and .50
L	2.41	.30 and .20
M	1.39	.50 and .30
N	0.27	.90 and .80
O	25.69	Significant at 01
Q ₁	3.68	.20 and .10
Q ₂	17.88	Significant at 01
Q ₃	15.05	Significant at 01
Q ₄	17.44	Significant at 01

TABLE-III

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF
THE SATISFIED AND DISSATISFIED TEACHERS ON 16 P.F.s

Factor	Satisfied teachers N=267		Dissatisfied teachers N=240		Standard Error of difference	Critical Ratio
	Mean	S.D.	Mean	S.D.		
A	5.99	1.47	5.45	1.66	.14	3.86
B	5.71	1.72	5.49	1.79	.16	1.41*
C	5.30	1.88	4.47	1.77	.16	5.12
E	5.17	1.82	5.25	1.47	.15	0.55*
F	3.85	1.50	3.93	1.49	.13	0.60*
G	6.48	1.79	6.65	1.77	.16	2.71
H	6.65	1.49	6.11	1.49	.13	4.07
I	6.90	1.93	6.78	1.79	.17	0.73*
L	5.54	1.78	6.08	1.88	.16	3.34
M	5.15	1.97	5.15	1.89	.17	0.00*
N	6.21	2.05	6.18	2.05	.18	0.16*
O	4.81	1.89	5.67	1.73	.16	5.34
Q ₁	4.47	1.77	4.96	1.90	.16	3.00
Q ₂	4.56	1.81	5.42	1.93	.17	5.16
Q ₃	6.16	1.69	5.28	1.60	.15	6.02
Q ₄	4.66	1.90	5.35	1.65	.14	5.08

*Not significant.

TABLE-IV

SIGNIFICANCE OF DIFFERENCE BETWEEN PERCENTS OF SATISFIED (S)
AND DISSATISFIED (DS) TEACHERS ON LOW AND HIGH DIRECTIONS OF
PERSONALITY FACTORS

Personality Factor	% of teachers Low direction			% of teachers High direction		
	S	DS	CR	S	DS	CR
A	1.87	9.58	3.80**	21.72	15.84	1.69
B	10.11	15.00	1.67	14.98	14.58	0.13
C	14.61	28.33	3.78**	10.86	4.17	2.82*
E	16.48	11.25	1.69	8.61	7.92	0.28
F	50.19	43.33	1.55	0.75	0.42	0.48
G	4.49	7.50	1.44	36.71	24.58	2.95*
H	2.25	5.00	1.67	23.22	12.92	2.99*
I	2.62	3.75	0.73	31.46	28.75	0.66
L	10.12	7.08	1.21	13.48	17.08	1.13
M	19.85	16.25	1.05	8.99	10.83	0.69
N	4.87	5.42	0.28	24.72	26.25	0.39
O	26.59	9.16	5.07*	8.99	10.42	0.56
Q ₁	22.85	18.33	1.25	6.74	10.83	1.63
Q ₂	37.45	20.83	4.10*	5.99	10.42	1.83
Q ₃	3.75	7.50	1.85	20.60	9.17	3.58*
Q ₄	28.46	13.33	4.16*	5.25	7.50	1.04

* Significant in favour of S-teachers

** Significant in favour of DS-teachers.

TABLE-V

**MATRIX OF COEFFICIENT OF CORRELATION BETWEEN
JOB SATISFACTION(JS) SCORES AND 16 PERSONALITY FACTORS**

[illegible]

SIXTEEN

PERSONALITY

FACTORS

REFERENCES

1. Anand, S.P.(1972): "School Teachers and Job Satisfaction" Teacher Education, ~~Teacher Education~~, VII(I), 16-23.
2. Anand, S.P. (1977) : School Teachers: Job satisfaction vs. Extraversion and Neuroticism, Indian Educational Review, XII(2), 68-78.
3. Balasubramaniam, S., and Naryan, S. (1977): "Effect of personality on Job Satisfaction among College Teachers", Journal of Educational Research and Extension, XIII(4), 191-194.
4. Cattell, Raymond B and Herbert W.Eber (1968): Manual for Forms A and B. "16 P. F." Institute for Personality and Ability Testing 1602-1604, Coronado Drive, Champaign, Illinois, U.S.A.
5. Gupta, R.N. (1977): "A Study of the Personality Traits of Primary School Teachers", Journal of Educational Research and Extension, XIV (1), 44-49.
6. Kaul, Lokesh (1974): "A Factorial Study of Personality Traits of Popular Teachers", Indian Educational Review, IX (1), 66-77.

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ABSTRACT

This paper on 507 trained teachers working in the High/Higher Secondary Schools of Eastern States of India involves the analysis of : (1) personality factors of teachers as found on Cattell's 16 P.F. and (2) relationship between personality factors and job satisfaction. It has been found that a good number (percentage) of teachers are reported to be outgoing, sober, conscientious, venturesome, practical, placid, controlled and relaxed. Similarly, a significant percentage of teachers is revealed to be easily up-set, tough-minded, suspicious, shrewd, *and* conservative ~~and tough minded~~.

Personality factors of warm heartedness, conscientiousness, perseverance, resilience, self sufficiency and trustworthiness are attributed to satisfied (267) teachers. Dissatisfied teachers (240) are found to be suspicious, followers of own urges, expedient, apprehensive and emotionally less stable.

IN THE QUEST OF BEST QUALITY TEACHERS
AN INVESTIGATION

All sorts of divergent thinking on education consequently converges to its exclusively vital component which is logically accepted to be the teacher. The teacher remains to be the sine quo non focal point of discussion on any topic or concern of education. Each system of education fundamentally emanates from the teacher and essentially attains its eventual finale at the very hands of the teacher. In the words of Education Commission (1966, p.46), "Of all the different factors which influence the quality of education and its contribution to national development, the quality, competence and character of teachers are undoubtedly the most significant". In this context, the Commission has very earnestly stressed the urgent need to procure the services of only the selected individuals of the society in the teaching profession. The above quoted remarks of the Commission are further read as, "Nothing is more important than securing a sufficient supply of high quality recruits to the teaching profession, providing them with the best possible professional preparation and creating satisfactory conditions of work in which they can be fully effective".

In teacher education, an objective analysis may give us a glimpse of a scheme for restructuring the curriculum (1978) in the hands of National Council for Teacher Education (NCTE),

for providing the 'best possible professional preparation' to the fresh incumbents to the teaching profession. To their limitations and appreciations, the Central and State Governments have taken steps to implement the revised pay scales of teachers in their endeavour to "create satisfactory conditions of work". But there is no evidence for the efforts made at any level by any agency for "securing a sufficient supply of high quality recruits" in the teaching profession. Adaval (1973), Singh and Neerja (1976) bear testimony to this glaring lacuna in teacher education programme. Here again we are reminded of the Education Commission (1966, p.72) by his salient remarks, "The essence of a programme of teacher education is 'quality' and in its absence teacher education becomes not only a financial waste but a source of overall deterioration in educational standards".

Any worthwhile endeavour for reform in education, should invite our thinking on qualitative improvement in teacher education. Ironically, even in this age of tremendous supply of highly academically qualified persons available in teacher training institutions, there seems to be no rational and scientific method in vogue to have the 'quality' selection for the teaching profession. It smears of a mere vacuous rationalisation to say that we can't arrive at or follow a scientific procedure for the purpose in our training colleges. The medical colleges, engineering colleges, banks, Central and State Governments have evolved their own well knit procedures

for making a meticulous selection of new entrants in their fold. We may not be led by rigorous procedures being practised elsewhere but we can and should reach a simple exercise for securing the 'quality' recruit which has been illustrated as the key figure in our thinking on qualitative improvement in education.

The approach of this paper :

While nearly all experts agree that personality is a significant factor in successful teaching, few authorities would conclude that research has measured personality components of teachers establishing some guide lines for the selection of new arrivals in the teaching profession. Adaval (1952) made an investigation into the quality of teachers under training. Anand (1961) has done his doctoral work on the selection of men school teachers (assessment of teachers' qualities). Shah (1962), Pandey (1968), Sharma (1969) and Pandya (1972) have done their researches on the construction of aptitude tests in the teaching profession. Unfortunately, these studies have remained confined to fetch the researchers Ph.D. degrees and the tests developed have not found any substantial place in teacher education.

To Deva (1966) personality seemed to be the most important and intelligence the least important in predicting success in student teaching. Samantaroy (1971) concluded in his study that superior efficiency goes with favourable attitude and good adjustment. In this quest of best quality teachers, factors associated with job satisfaction (attitude towards the teaching profession) of teachers are examined. These very

'associated' factors are assumed to be essentials for 'quality' teachers.

Tools:

Following three tools have been used in this investigation :

1. Job satisfaction Scale - Anand (1971, 1972)
2. Maudsley Personality Inventory (MPI)
3. Study of Values - Lindzey, Allport & Vernon(1960).

Job Satisfaction Scale is based upon the global attitude of teachers towards the teaching profession. This scale has been constructed following the Likert's technique. This consists of 30 statements. The teacher's agreement to each of 15 statements records his satisfaction whereas rest of statements enlists his dissatisfaction. In this five point scale, teachers' score of 80 out of the maximum of 120 has been arrived at as qualifying them as satisfied below which they are taken to be unsatisfied at their job. }

Maudsley Personality Inventory measures the degrees of extraversion and neuroticism. This inventory includes 24 statements pertaining to each of the two dimensions of the personality. The raw scores of 40 statements are converted into standardized scores for analysis.

Study of Values is related to six values i.e. theoretical, economic, aesthatic, social, political, and religious. This

Scale of 45 statements in its two parts gives the value patterns of personality structure of the testees.

Sample :

This study has involved 462 working teachers of high and higher secondary classes and 661 pupil-teachers of the B.Ed. course.

Discussion of the Data:

The discussion is done on the following lines :

1. Number of satisfied and unsatisfied teachers with respect to their age and State of working.
2. Degree of extraversion and neuroticism in the personality structure of working teachers and satisfied teachers.
3. Degree of extraversion and neuroticism in the personality structure of pupil-teachers.
4. Value patterns of working teachers and satisfied teachers.
5. Value patterns of pupil-teachers.
6. Correlation between job satisfaction and personality components of teachers.

Interpretation:

1. NUMBER OF SATISFIED AND UNSATISFIED TEACHERS

1.1 Teachers' Age and Job Satisfaction:

TABLE-1

SATISFIED AND UNSATISFIED TEACHERS IN DIFFERENT AGE GROUPS

Age Groups	Teachers	
	Satisfied	Unsatisfied
45 - 49	1(0.00)	5(3.00)*
40 - 44	8(2.70)	11(6.62)
35 - 39	74(25.00)	44(26.50)
30 - 34	147(49.66)	71(42.77)
25 - 29	63(21.88)	35(21.08)
20 - 24	3(1.00)	0(0.00)
Total:	296(64.06)	166(35.04)

*Figures in brackets stand for percentage values.

Significance of difference between mean age of satisfied and unsatisfied teachers:

<u>Teachers</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>
Satisfied	296	32.41	4.03
Unsatisfied	166	32.39	4.83
σ_D =	.611	CR =	.03

In no age group there exists a significant difference

between the number of satisfied and unsatisfied teachers. Absence of any significant difference between the mean ages of satisfied and unsatisfied teachers further supports the finding that age and job satisfaction in schools are two independent variables. This finding falls in line with the researches of Ganguli (1955) on industrial workers and Anand (1977) on School teachers.

1.2 State in which Teachers are working and their Job Satisfaction

TABLE-II

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEAN JOB SATISFACTION SCORES OF TEACHERS OF ORISSA AND OTHER STATES

States	N	Mean	S.D.
Orissa	262	82.97	12.87
Other States	200	83.35	12.47
$\bar{D} =$	1.18	CR =	0.32

Number of satisfied and unsatisfied teachers

States	Satisfied	Unsatisfied	Significance of difference	
			\bar{D}	CR
Orissa	162(61.80)	100(38.20)	4.37	5.40
Other States	134(67.00)	66(33.00)	5.00	6.80

The sample of this study includes 262 teachers from

Orissa and 200 teachers from seven other States namely Bihar(87), Manipur (51) , Bengal(35), Bhutan(9), Andaman(9), Arunachal Pradesh (2) and Assam (7).

The mean job satisfaction scores for Orissa teachers and teachers coming from other States are closely calculated to be 82.97 and 83.35 respectively with S.D. of 12.87 and 12.47. To add to it, we find no significant difference between the number of satisfied teachers of two groups (States). This corroborates the author's earlier findings in the paper entitled, "Job Satisfaction vs. Work Role Variables", (1978), accepted for publication by the Indian Educational Review. We can say, States in which teachers are working bear no tangible determining influence on their job satisfaction.

From the above two findings we can say that age as well as State to which they belong, can be ignored in the quality recruits to the teaching profession.

2. DEGREE OF EXTRAVERSION AND NEUROTICISM IN THE PERSONALITY STRUCTURE OF WORKING TEACHERS

Extraversion briefly symbolizes healthy state of mind whereas neuroticism seldom is seen to be a favourable component in the personality structure of the individual. Teachers involved in the process of interaction with impressionable minds of the children should be free from neuroticism and rich in extraversion in their personality components.

TABLE-III

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES
ON EXTRAVERSION AND NEUROTICISM OF THE WORKING TEACHERS

	Orissa Teachers		Other State Teachers		C.R.
	N = 262		N = 200		
	Mean	SD	Mean	SD	
Extraversion	51.26	9.06	51.20	10.57	.07
Neuroticism	49.24	8.45	48.10	9.07	1.51

It is inferred from Table III that :

1. teachers of different States do not differ in their possession of degrees of extraversion and neuroticism.
2. teachers irrespective of their belongingness to different States, they possess a higher degree of extraversion than neuroticism.

2.2. Number of Teachers in three levels of
Extraversion and Neuroticism

TABLE-IV

SIGNIFICANCE OF DIFFERENCE BETWEEN NUMBER OF TEACHERS
AT HIGHER, MIDDLE AND LOWER LEVELS OF EXTRAVERSION & NEUROTICISM

Level	Extraversion			Neuroticism		
	Or	States	Total	Or	States	Total
High	156	126	282	121	80	201
(50-78)*	(59.54)**	(63.00)	(61.04)	(46.18)	(40.00)	(43.51)
Middle	105	70	175	141	120	261
(25-4)	(40.06)	(35.00)	(37.80)	(53.82)	(60.00)	(56.49)
Low	1	4	5	0	0	0
(0-24)	(0.40)	(2.00)	(1.08)			

* Range of scores.

** Figures stand for percentage values.

The absence of significance of difference between percentage of teachers of Orissa and other States falling in high and middle levels of extraversion and neuroticism reveals that their working in different States do not matter in their placement at different levels of extraversion and neuroticism. In Orissa as well as ⁱⁿ other States, the percentage of teachers falling in high level of extraversion out number the teachers falling in this level of neuroticism. As a whole, a significantly greater number (61.04%) of teachers fall at high level of extraversion than the number of teachers (43.51%) claiming this level in neuroticism.

From Table III and IV, we establish that working teachers are more extrovert than neurotic. It must be taken as a welcome revelation about our teaching personnel.

2.3 Job Satisfaction Vs. Extraversion and Neuroticism

TABLE V

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON
EXTRAVERSION AND NEUROTICISM OF SATISFIED AND UNSATISFIED TEACHERS

	N = 296 Satisfied Teachers		N = 166 Unsatisfied Teachers		C.R.
	Mean	S.D.	Mean	S.D.	
Extraversion	52.47	10.26	50.34	9.89	2.19
Neuroticism	45.58	9.19	48.14	9.27	2.86

Number of satisfied and unsatisfied teachers in
three levels of extraversion and neuroticism

Level	Extraversion		Neuroticism	
	Satisfied	Unsatisfied	Satisfied	Unsatisfied
High	190(64.18)	92(55.42)	115(38.85)	86(51.81)
Middle	103(34.79)	72(43.37)	181(61.15)	80(48.19)
Low	3(1.03)	2(1.21)	0	0

From Table V, it is clear that there exists a significant difference between the mean scores of satisfied and unsatisfied teachers both on extraversion ($CR = 2.19$) as well as neuroticism ($CR = 2.86$). This difference in mean score on extraversion goes in favour of satisfied teachers whereas on neuroticism it goes in favour of unsatisfied teachers. Similarly, a greater number of satisfied (64.18%) than unsatisfied (55.42%) teachers are found to be at the high level of extraversion ($CR = 1.85$). The significantly greater ($CR = 2.70$) number of unsatisfied teachers (51.81%) than satisfied teachers (38.85%) are at the high level of neuroticism. This shows that satisfaction in the school teaching job goes with extraversion and dissatisfaction is associated with neuroticism. This finding falls in line with Anand (1977), the researchers reported by Rohila (1966) and Agrawal (1979) that job satisfaction bears negative correlation with neuroticism.

This gives us a convincing argument that in 'quality'

recruits to the teaching profession we should prefer extroverts rather than neurotics. Let us examine the existence of these two dimensions of personality in our pupil-teachers i.e. would be teachers in the schools.

3. EXTRAVERSION AND NEUROTICISM IN THE PERSONALITY STRUCTURE OF PUPIL TEACHERS

3.1 Pupil-Teachers and Working Teachers on Extraversion and Neuroticism

TABLE-VI

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEAN SCORES ON
EXTRAVERSION AND NEUROTICISM OF WORKING TEACHERS & PUPIL-TEACHERS

	N = 462		N = 325		C.R.
	Working Teachers		Pupil Teachers		
	Mean	S.D.	Mean	S.D.	
Extraversion	51.23	10.96	52.85	8.85	2.29
Neuroticism	46.76	8.61	47.75	7.72	1.69

Number of Pupil-teachers in three levels of extraversion and neuroticism

	Low (0 - 24)	Middle (25 - 49)	High (50 - 78)
Extraversion	1 0.31	127 39.07	197 60.61
Neuroticism	0	193 59.38	132 40.62

It is inferred from Table VI that pupil-teachers show a significantly greater mean score on extraversion than is shown by the working teachers. In contrast to it pupil-teachers, too,

do show, however not significant, a greater mean score on neuroticism than is shown by the working teachers. Again there are significantly greater number (60.61%) of pupil-teachers at high level of extraversion than the number (40.62%) of teachers found at the high level of neuroticism. But as desirable in 'quality' recruits to the teaching profession this does not sound to be commendable that 40% recruits do possess a high level of neuroticism.

3.2 Pupil-Teachers vs. Satisfied Working Teachers on Extraversion & Neuroticism:

TABLE VII

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF SATISFIED WORKING TEACHERS AND PUPIL-TEACHERS ON EXTRAVERSION AND NEUROTICISM

	Satisfied Working Teachers N = 296		Pupil Teachers N = 325		C.R.
	Mean	S.D.	Mean	S.D.	
Extraversion	52.47	10.26	52.85	8.85	0.25
Neuroticism	45.58	9.19	47.75	7.72	3.17

Table VII portrays an important inference of this study. Pupil-teachers have been found to possess a significantly high mean score on neuroticism than the working satisfied teachers. It may be noted that pupil-teachers desirous of entering into the teaching profession do possess a dimension (neuroticism) of personality which will never be helpful to them to seek job

satisfaction and may keep them incomplete effective and efficient. This also brings the grim reality into limelight that in teacher-education programme we do not start with 'quality' men and women in the preparation of best 'quality' teachers for the teaching profession.

4. VALUE PATTERNS OF WORKING TEACHERS

4.1 Values of Teachers of different States

TABLE-VIII

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON
VALUES OF TEACHERS OF ORISSA AND OTHER STATES

Values	N = 262 Orissa		N = 200 Other States		C.R.
	Mean	S.D.	Mean	S.D.	
Theoretical	44.27	6.13	44.60	7.64	0.50
Economic	40.66	6.19	41.38	6.83	1.17
Aesthatic	35.26	6.23	36.10	6.11	1.45
Social	45.05	6.43	43.75	6.13	2.21
Political	41.66	5.51	42.37	5.99	1.30
Religious	33.71	6.48	31.50	8.93	3.95

It may be interpreted that teachers of Orissa possess significantly more social and religious values as compared to their counterparts working in other States. That means teachers of Orissa possess a high degree of compassion and respect for mankind than is possessed by teachers from other States.

4. 2 Values of Satisfied and Unsatisfied Teachers

TABLE-IX

SIGNIFANCE OF DIFFERENCE BETWEEN MEAN SCORES OF SATISFIED AND UNSATISFIED TEACHERS ON SIX VALUES

Values	N = 296 Satisfied		N = 166 Unsatisfied		C.R.
	Mean	S.D.	Mean	S.D.	
Theoretical	44.43	6.32	44.38	6.46	0.08
Economic	41.16	6.94	40.64	5.60	0.88
Aesthatic	35.28	5.83	35.95	6.48	1.10
Social	44.66	6.28	44.16	6.45	0.81
Political	41.72	5.59	42.39	6.11	1.16
Religious	32.57	6.77	32.48	7.80	0.99

It is revealed from the above table that there exists no significant difference between the mean scores of satisfied and unsatisfied teachers. However, comparatively low political values (CR = 1.16) can be read as more favourable with satisfied teachers than unsatisfied teachers.

4.3 Satisfied Teachers on High and Low directions of values

TABLE-X

SIGNIFICANCE OF DIFFERENCE BETWEEN NUMBER (PERCENTAGE) OF SATISFIED TEACHERS ON HIGH AND LOW DIMENSIONS OF SIX VALUES

Values	Satisfied Teachers (N = 296) Directions		C.R.
	High	Low	
Theoretical	56 (18.91)	54 (18.24)	0.67
Economic	40 (13.51)	62 (20.94)	2.42
Aesthatic	42 (14.18)	36 (12.16)	0.74
Social	186 (62.83)	5 (1.68)	16.00
Political	49 (16.55)	69 (23.31)	2.08
Religious	20 (6.75)	69 (23.31)	5.67)

It can be inferred from Table X that out of the six values, satisfied and unsatisfied teachers differ significantly in their placement on four values i.e. economic, social, political and religious. These are economic, political and religious values where a significantly greater number of satisfied teachers occupy the low direction whereas on social values satisfied teachers have preferred significantly high direction. We can say low economic, political and religious values and high social values are imbibed in satisfied teachers.

From Tables VIII, IX and X it may be inferred that teachers belonging to different States do not differ significantly in their mean scores on six values. Again, however, it is found that satisfied and unsatisfied have also not shown any significant difference in their possession of these values, but it is very clear that satisfaction in teaching profession is conditioned with the embodiment of low economic, political, religious values and high social values. That illustrates that our 'quality' recruits in the teaching profession should be rich in social values whereas they should possess low of economic, political and religious values. This gives us a clear line to examine our pupil-teachers in their possession of these values.

5. VALUE PATTERNS OF PUPIL-TEACHERS

5.1 Values of Pupil-Teachers and Working Teachers

TABLE-XI

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES
ON THE VALUES OF PUPIL-TEACHERS AND WORKING TEACHERS

	Pupil-teachers N = 336		Working teachers N = 462		C.R.
	Mean	S.D.	Mean	S.D.	
Theoretical	45.07	5.98	44.40	6.63	1.49
Economic	42.33	5.95	40.89	6.50	3.51
Aesthatic	35.25	5.68	35.64	6.69	0.88
Social	42.31	6.07	39.52	6.21	6.35
Political	42.00	5.76	41.97	5.69	0.07
Religious	33.66	6.82	32.50	5.87	2.51

It is inferred that pupil-teachers and working teachers differ significantly on economic, social and religious values. Pupil-teachers score significantly more on economic, social and religious values than scores^d by working teachers. However, with our 'quality' teachers these are low economic, religious values and high social values which are considered to be desirable. That means pupil-teachers fall short of the required value patterns of 'quality' teachers as compared with the working teachers.

5.2 Pupil-Teachers and Working Teachers on High(H) and Low(L) dimensions of Six Values

TABLE-XII

SIGNIFICANCE OF DIFFERENCE BETWEEN THE NUMBER OF PUPIL-TEACHERS AND WORKING TEACHERS ON HIGH(H) AND LOW(L) DIRECTIONS OF SIX VALUES

Values	N = 336 Pupil-Teachers		N = 462 Working Teachers		C.R.	
	L	H	L	H	L	H
Theoretical	16(4 .76)	136(40.47)	85(18.40)	91(19.70)	5.75	9.55
Economic	34(10.12)	65(19.34)	99(21.43)	51(11.04)	4.25	3.30
Aesthetic	138(41.07)	16(4.76)	54(11.68)	68(14.72)	9.63	4.55
Social	26(7.73)	86(25.59)	6(1.29)	276(58.75)	4.63	9.28
Political	30(8.92)	81(24.11)	97(21.00)	72(15.57)	4.73	3.03
Religious	28(8.33)	8(2.38)	204(44.16)	29(6.27)	11.05	2.59

Table XII enlists the number of pupil-teachers and working teachers on high and low dimensions of six values. The following inferences emerge from this Table :

- a) There are significantly greater percentage of working teachers than pupil-teachers (i) on the low directions of theoretical, economic, political and religious values, (ii) on the high directions of aesthetic, social and religious values.
- b) There are significantly greater percentage of pupil-teachers than working teachers, (i) on the low directions of aesthetic and social values. (ii) on the high directions of theoretical, economic, political and religious values.

The above inferences clearly defy the value patterns of

working satisfied teachers in the pupil-teachers and give a better picture of working teachers. This is substantiated (Table I) by significantly greater percentage (64.06%) of working teachers found as satisfied as compared to 35.04% found to be unsatisfied.

5.3 Values of working satisfied teachers and pupil-teachers

TABLE-XIII

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES ON VALUES OF PUPIL-TEACHERS AND WORKING SATISFIED TEACHERS

Values	Pupil-Teachers N = 336		Satisfied Teachers N = 296		C.R.
	Mean	S.D.	Mean	S.D.	
Theoretical	45.07	5.98	44.43	6.32	1.30
Economic	42.33	5.95	41.16	6.94	2.26
Aesthatic	35.25	5.68	35.28	5.83	0.06
Social	42.31	6.07	44.66	6.28	4.77
Political	42.00	5.76	41.72	5.59	0.62
Religious	33.66	6.82	32.57	6.77	2.01

Here we find that pupil-teachers score significantly more on economic, religious values and less on social values than satisfied working teachers. Pupil-teachers, however, not significant, but have claimed a more mean score on political values than the satisfied teachers. This inference squarely substantiate that pupil-teachers do not conform to the value patterns of working satisfied teachers on whom we are testing

their 'quality'.

In conclusion, we can say, 'quality' teachers' value patterns is not found to be adhered to in the personality structure of pupil-teachers.

6. CORRELATION BETWEEN JOB SATISFACTION AND PERSONALITY COMPONENTS OF TEACHERS

TABLE-XIV

MATRIX OF COEFFICIENT OF CORRELATION BETWEEN TEACHERS' PERSONALITY COMPONENT AND JOB SATISFACTION

S.N.

1.	1.000								
2.	-.168	1.000							
3.	.151	-.200	1.000						
4.	.004	-.021	-.088	1.000					
5.	.033	-.098	.075	-.080	1.000				
6.	-.068	.150	-.118	-.326	-.240	1.000			
7.	.101	-.139	.084	-.196	-.121	-.299	1.000		
8.	-.041	.029	.024	-.033	-.051	-.168	-.141	1.000	
9.	-.031	.040	.008	-.319	-.399	.032	-.160	-.180	1.000

1. Job Satisfaction	2. Neuroticism
2. Extraversion	4. Theoretical
5. Economic	6. Aesthetic
7. Social	8. Political
9. Religious.	

Job satisfaction bears coefficient of correlations of the values of $-.168$, $+.151$, $+.101$ with neuroticism, extraversion and social values respectively. From the matrix, it is clear that extraversion and neuroticism are negatively

correlated with each other. Six values are also negatively related with each other. That means all these eight components are independent constituents of the personality. An important illustration follows that we should expect the desirable personality components in the 'quality' recruits as independent rather than presuming the possession of the one component may ensure the existence of other components in our pupil-teachers.

Summary of findings:

1. Job Satisfaction of working teachers is independent of their age and States in which they are working.
2. Job Satisfaction assumed to be the test of 'quality' teachers has been found to be positively associated with extraversion, social values and negatively related with neuroticism, religious, economic and political values.
3. Pupil-teachers do not conform to the value patterns and extraversion, neuroticism of 'quality' teachers.
4. Once the basic academic qualification is fulfilled, the practice should be followed in the selection of pupil-teachers who should possess high degree of extraversion, social values and low degree of neuroticism, religious, economic and political values.

Conclusion:

"Who should teach"? The best should teach, according to Lindley J. Stiles (1958, p.7) of the University of Wisconsin. "Teaching beckons to those with the brightest minds, the finest personalities, and the soundest moral and spiritual commitments. It holds before them a life packed with excitement

and satisfaction. It appeals to them to make the mature choice to put service to humanity above self". This exhorts on us to make the 'best' selection of our 'quality' recruits to the teaching profession. These are only the 'quality' recruits who need be equipped with essential skills of teaching in any meaningful teacher education programme. The investment in teacher education will be fully productive only on 'quality' recruits who are imperative to bring any reform and improvement in any system of education under the created satisfactory conditions of work. The thread of this study may be picked up and tests available in this field, Singh & Neerja (1979), should be selected and a concerted, comprehensive research should be undertaken to evolve some useful practical criteria in the selection of 'quality' recruits in the programme of teacher education in our teacher training institutions.

REFERENCES

1. Adaval, S.B. (1952) : An investigation into the qualities of teachers under training; Ph.D.Ed. Thesis, Allahabad University.
2. Adaval, S.B. (1973) : Training of secondary school teachers Chap. 21, p.309-401. The Fourth Indian Year Book of Education, Edited by K.G. Saiyidain.
3. Agrawal, K.G. (1979) : Work satisfaction and mental health. Indian Educational Review; XIV (I) 22-29.
4. Allport-Vernon-Lindzey (1960) : Study of Values Manual; Boston Houghless Mifflin Company.
5. Anand, K.K. (1961) : Selection of men school teachers. Ph.D. Psy. Thesis: Punjab University.
6. Anand, S.P. (1971) : A Study of teacher-pupil relationship in higher secondary classes in Delhi. Ph.D. Ed. Thesis: Delhi University.
7. Anand, S.P. (1972) : School teachers and job satisfaction. Teacher Education. VII (I), 16-23.
8. Anand, S.P. (1977) : School Teachers : Job Satisfaction Vs. Extraversion and neuroticism. Indian Educational Review. XII (2), 68-78.
9. Commission, Education (1966). Education and National Development. Ministry of Education, Government of India, Delhi.
10. Curriculum, Teacher Education (1978) National Council for Teacher Education, National Council of Educational Research and Training, New Delhi.
11. Deva, R.C. (1966) : Prediction of school teaching success. Ph.D.Ed. thesis. Aligarh Muslim University.
12. Ganguli, H.C. (1955) : A discussion of some variables affecting attitudes of industrial workers. Indian Journal of Psychology, 30, 45-60.
13. Pandey, K.P. (1968) : Construction and Standardization of a Teaching Aptitude Test, Ph.D.Ed. Jiwaji University.
14. Pandya, B.G. (1972) : Professional tests for teachers. Ph.D. Ed. Bombay University.
15. Rohilla, Pritam (1966) Job Satisfaction - A summary of research, Indian Educational Review, I(I), 85-95.

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16. Samantray, G.K. (1971) : A study of teacher attitude and its relationship with teaching efficiency. Ph.D. Ed. Sambalpur University.
17. Singh, R.P. and Neerja Dwivedi (1976) : Research in teacher education - Trends and proposals. Indian Educational Review, XI (I), 17-32.
18. Singh, R.P. and Neerja Shukla (1979) Test and Testing in teacher education in India - A review of literature. Indian Educational Review. XIV (I) 30-55.
19. Shah, M.M. (1962) : An aptitude test for secondary school teachers - Construction and standardization, Ph.D. Ed. Thesis, M.S. University.
20. Sharma, S.N. (1969) : A teaching aptitude test for elementary school teachers. Ph.D.Ed. Thesis, Patna University.
21. Stiles, Lindly J. (1958) : The best should teach. Wisconsin Journal of Education 90(8), p.7 quoted by Chandler B.J. Education and the Teacher New York: Dodd, Mead & Company, 1961, p.159.

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ABSTRACT

This study includes 462 working teachers of high and higher secondary classes and 661 pupil-teachers of the B.Ed. course. A Job Satisfaction Scale, Maudsley Personality Inventory and Study of Values have been used in this investigation. It is revealed that States in which they are working and age bear no relationship with job satisfaction. Job satisfaction assumed to be the test of 'quality' teachers has been found to be positively associated with extraversion, social values and negatively related with neuroticism, religious, economic and political values. Further, the study reveals that pupil-teachers do not conform to the value patterns and extraversion, neuroticism of 'quality' teachers.